# DEC STD 010-1 Engineering Documentation Checking: Document Checklist

**DOCUMENT IDENTIFIER:** A-DS-EL00010-01-0000 Rev B1, 10-May-1990

**ABSTRACT:** This document provides a document checklist for the checker to use in meeting Digital standards and drafting requirements.

**APPLICABILITY:** Mandatory for all personnel involved in preparing and checking Engineering documentation withn Digital.

**STATUS:** APPROVED 10-May-1990; use VTX SMC for current status.

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| | |
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| Responsible Department: | Engineering Support Operations |
| Responsible Person: | Phil Reed |

APPROVAL: This standard has been recommended for approval by the General Review Group for its category.

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# 1 INTRODUCTION

The purpose of these checklists is to provide a guideline for the individual(s) responsible for checking drawings and documents within the Engineering Documentation System. These checklists are organized by document category and include items required by Digital standards and drafting requirements.

# 2 GENERAL

## 2.1 TITLE BLOCK

a. Title must agree with option designation list and/or define the part.

b. Title should not exceed 32 characters, including spaces; DOCs will not accept more than 32 characters.

c. The assigned document identifier must comply with *DEC STD 012-2 Unified Numbering Code for Part Identifier Class Codes*.

d. The correct document identifier must appear in both title block and all supplementary number blocks.

e. The Top Document number and/or next higher assembly number must be entered in the appropriate block. Refer to *DEC STD 012-0 Part Identification Standard.*

f. The scale block must show the predominant scale if more than one scale appears on drawing.

g. Document Revisions must comply with *DEC STD 014-0 Revision Control of Engineering Documentation: Requirements and Methods.*

h. Completion date of drawing must appear on that drawing. The date must appear in an unambiguous format; see *DEC STD 112-0 Standard Date Format for Output.*

i. Material identification must comply with *DEC STD 048-0 Metallic Raw Material Selection and Identification* and *DEC STD 020-0 Cast Metal Parts.*

j. Finish identification must comply with *DEC STD 092-0 Finish and Color Standard - Introduction and General Requirements.*

k. Mnemonic drawing codes used must be listed and conform to *DEC STD 012-1 Documentation Identification Conventions Including Mnemonic Codes.*

l. Multi-sheet drawings should be the same size, sheet to sheet, if possible. If sizes vary, cross-reference must be made on all sheets of the drawing. Multi-sheet drawings must also be numbered in consecutive order (Sheet 2, 3, etc.). The total number of sheets shall be shown on sheet one in the sheet number block.

m. Upon approval, dates and names of designers, draftpersons, checkers, and engineers shall be placed in the appropriate blocks.

### 2.2 BODY OF DRAWING

a. All spelling must be correct.

b. Abbreviations must comply with *DEC STD 015-0 Abbreviations and Units of Measurement.*

c. Lettering and line density must comply with *DEC STD 182-0 Engineering Documentation Acceptance Criteria.*

d. When used alphanumerically, letters O and I must be distinguished from numbers 0 and 1, respectively; for example, VT100, COPIOC.

e. For information regarding the revision history block, see *DEC STD 013-1 Standard Engineering Drawing Formats and Forms - General Purpose Drawing Sizes and Formats.*

### 2.3 DRAWING NOTES AND LEGEND

a. Note information must be complete, concise, and accurate.

b. Drawing notes must be listed sequentially and properly located on the document.

c. Notes specifying "process" should be avoided unless they are essential to the engineering definition of the product.

d. The "Legend" should be located to the left of "Notes."

## 3 MECHANICAL CHECKLIST

a. Views and sections should be used when additional detail is required to clearly interpret the drawing.

b. When describing views and sections, directional arrows or cutting planes must appear. If required, caution notes must appear where sectional views are not properly located (with respect to cutting plane). Views and sections should not be rotated or twisted.

c. Drawing must list correct variations of part, and the right or left hand of part, if required.

d. Item numbers for individual parts and sub-assemblies must appear on the assembly drawing and correspond to the parts list.

e. Do not dimension to hidden lines per *DEC STD 114-0 Engineering Drawing Requirements - Industry Standards Adopted by Digital Engineering and Manufacturing Organizations* and *DEC STD 114-1 Engineering Drawing Requirements - Dimensioning and Tolerancing for Engineering Drawings.*

f. The part must be fully dimensioned and the dimensions must be positioned correctly as directed in the two sections of DEC STD 114.

g. Double dimensioning is unacceptable; proper use of "REF" is necessary (DEC STD 114 and DEC STD 140).

h. Dimensioning must not appear to result in objectionable tolerance accumulation (DEC STD 114-0).

i. Tolerances must be realistic and conform to engineering specifications if indicated (DEC STD 114-0).

j. Drawing should be drawn to scale or noted otherwise.

k. Symbols covering geometric surface relationships must conform to DEC STD 114-0.

l. Drawing must include notes or symbols for welding per ANSI/AWS A2.4-79, *Symbols for Welding and Nondestructive Testing.*

m. Drill depths must be noted and sufficient for full thread or reamed depths.

n. Casting and molding drawings should conform to DEC STD 114-1 for dimensioning and tolerancing requirements.

## 4 ELECTRICAL CHECKLIST

The rules for electrical drawings are consolidated into DEC STD 056. The following checklist indicates specific DEC STD 056 sections that apply:

a. The logical function of each unit must be identified properly.

b. Unnecessary dotted lines enclosing logical units should be omitted.

c. Logic names must be consistent.

d. Electrical symbols must comply with *DEC STD 056-3 Symbology - Discrete Electronic and Electromechanical Component Symbols.*

e. Signal flow on block schematics should flow from left to right and from bottom to top, in accordance with *DEC STD 056-0 Circuit Diagrams and Item Designations - General Requirements.*

f. Pin indicators must be properly assigned and positioned next to signal symbols and signal flow lines.

g. Diodes must be shown in the correct direction.

# APPENDIX A REFERENCED DOCUMENTS

## A.1 EL-Class Digital Documents

| EL-Class Number | Document Title |
|---|---|
| EL-00012-00 | *DEC STD 012-0 Part Identification Standard* |
| EL-00012-01 | *DEC STD 012-1 Documentation Identification Conventions Including Mnemonic Codes* |
| EL-00012-02 | *DEC STD 012-2 Unified Numbering Code for Part Identifier Class Codes* |
| EL-00013-01 | *DEC STD 013-1 Standard Engineering Drawing Formats and Forms - General Purpose Drawing Sizes and Formats* |
| EL-00014-00 | *DEC STD 014-0 Revision Control of Engineering Documentation: Requirements and Methods* |
| EL-00015-00 | *DEC STD 015-0 Abbreviations and Units of Measurement* |
| EL-00020-00 | *DEC STD 020-0 Cast Metal Parts* |
| EL-00048-00 | *DEC STD 048-0 Metallic Raw Material Selection and Identification* |
| EL-00056-00 | *DEC STD 056-0 Circuit Diagrams and item Designations - General Requirements* |
| EL-00056-03 | *DEC STD 056-3 Symbology - Discrete Electronic and Electromechanical Component Symbols* |
| EL-00092-00 | *DEC STD 092-0 Finish and Color Standard - Introduction and General Requirements* |
| EL-00112-00 | *DEC STD 112-0 Standard Date Format for Output* |
| EL-00114-00 | *DEC STD 114-0 Engineering Drawing Requirements - Industry Standards Adopted by Digital Engineering and Manufacturing Documentation Organizations* |
| EL-00114-01 | *DEC STD 114-1 Engineering Drawing Requirements - Dimensioning and Tolerancing for Engineering Drawings* |
| EL-00182-00 | *DEC STD 182-0 Engineering Documentation Acceptance Criteria* |

Use VTX SMC to order copies of EL-class documents from Standards and Methods Control. Send distribution questions to JOKUR::SMC or call DTN: 234-4423.

## A.2 Other Documents

| Document Number | Document Title |
|---|---|
| ANSI/AWS A2.4 - 79 | *Symbols for Welding and Nondestructive Testing* |

- American Welding Society
  2501 NW 7th Street, Miami, Florida 33125

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+---------------------------------------------------------------------+
|                        READER COMMENTS                              |
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| Your  comments  and suggestions  will help  Standards and Methods   |
| Control improve their services and documents.                       |
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